



# **Who's Got the Evidence in the Evidence-Based Practice Movement?**

**Patricia Wesley  
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# Objectives

- Identify sources of professional knowledge
- Define evidence-based practice & its origins
- Consider the influence of EBP on the early childhood field
- Participate in an EBP decision-making process







**What is the  
main source  
of knowledge  
guiding your  
practice?**





# Sources of Knowledge

- Research
- Wisdom & experience
- Colleagues
- Conferences
- Other?



A quality enhancement initiative hopes to provide effective technical assistance to all child care programs.



# What does the research say?

- The early childhood field lacks consensus on the definition and essential components of TA.
- Research is limited on effective models for raising quality in early childhood programs, with only a handful of articles deliniating a specific approach.

# Keira



- Keira's mom wants Keira to receive sensory integration therapy.
- The early interventionist wonders whether sensory integration is effective for toddlers like Keira.



# **What does the research say?**

Various reviews on sensory integration show mixed results for this intervention. Sensory integration has been defined (and the effects measured) inconsistently with toddlers like Keira.

**How would you decide  
what to do?**





# **Evidence-Based Practice (EBP)**

*a decision-making process that  
integrates the best available  
research evidence with family  
& professional wisdom &  
values*

*(Buysse & Wesley, 2006)*

# Sample Questions

- Which practices are most effective?
- For whom?
- Under what circumstances?
- How do research findings apply to a local context?



# **Why did EBP emerge?**

- Evidence-based medicine

# **Evidence-Based Medicine**

*The integration of the best available research evidence with clinical expertise and patient values.*

(Sackett et al., 2000)





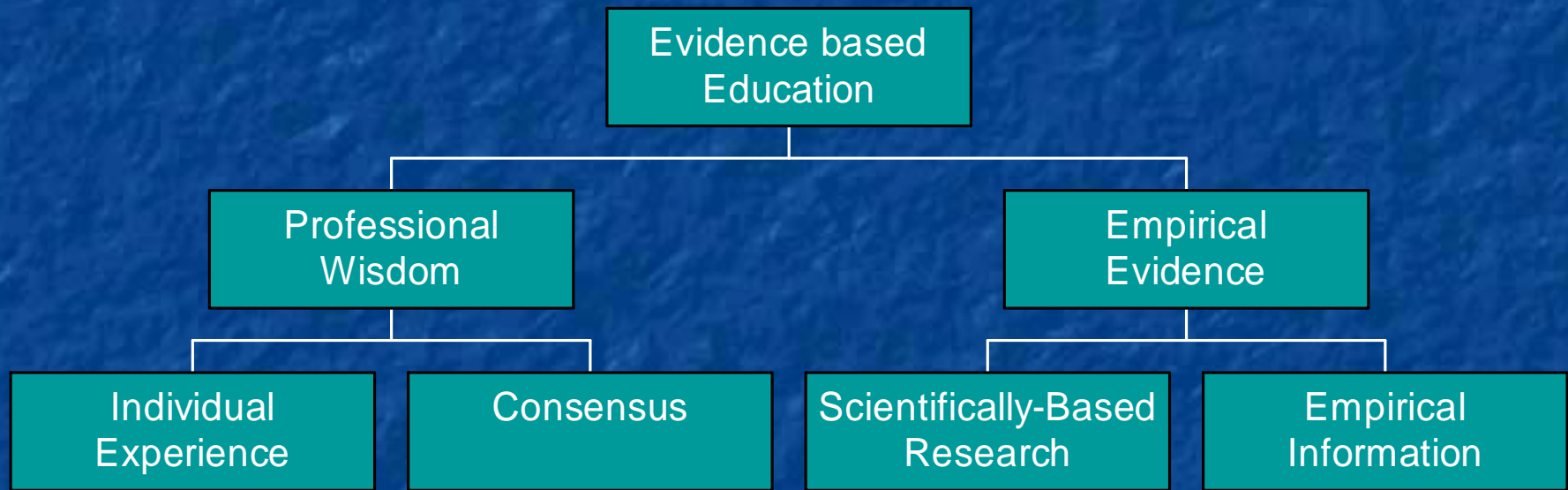
*"Let's just start cutting and see what happens."*

# **Why did EBP emerge?**

- Evidence-based medicine
- Evidence-based education



# Evidence-Based Education



(Whitehurst, 2002)

# Why did EBP emerge?

- Evidence-based medicine
- Evidence-based education
- Research ↔ practice gap



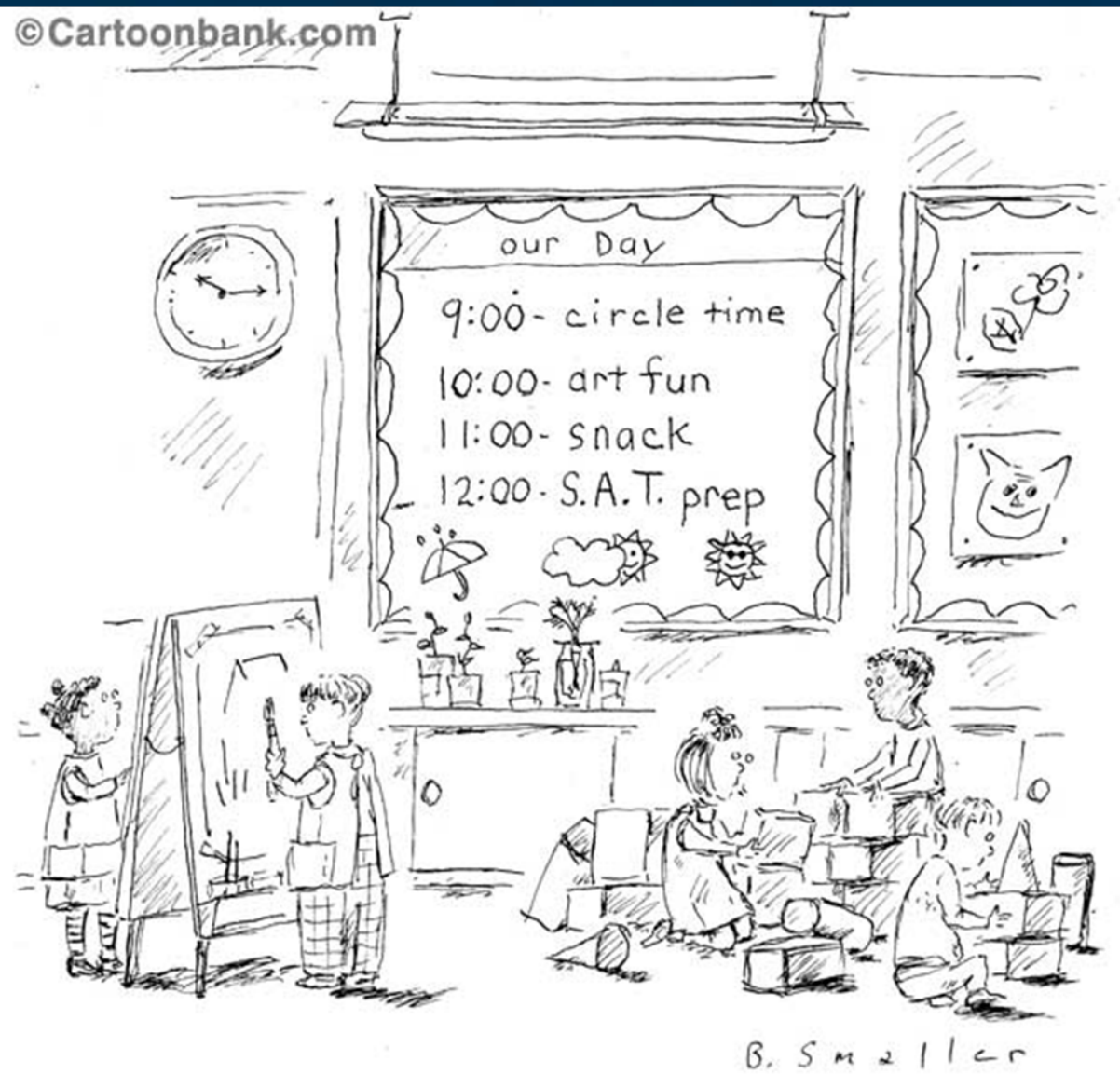
**Why don't practitioners  
do what the research  
says?**

**Why don't researchers  
study what really matters  
in practice?**

# **Why did EBP emerge?**

- Evidence-based medicine
- Evidence-based education
- Research-practice gap
- Standards & accountability movement





**How will EBP  
influence the field?**



# How will EBP affect policy?

- What sources of evidence are available and legitimate?
- What weight should policy makers give to different types of evidence in deciding what programs and actions to implement for the good of society?



# How will EBP affect research?

- Demand for scientific evidence to show “what works”
- Need to appraise the quantity and quality of research evidence
- Need to determine what forms of evidence count

# **How will EBP change the ways in which we share & use knowledge?**

- Emphasis on gathering & synthesizing practice knowledge
- Proliferation of EBP web sites
- Need to appraise the quality of the research-based knowledge

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## Welcome to **WWC**

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The What Works Clearinghouse (WWC) collects, screens, and identifies studies of effectiveness of educational interventions (programs, products, practices, and policies). The WWC regularly updates the WWC Technical Standards and their application to take account of new considerations brought forth by experts and users. Such changes may result in re-appraisals of studies and/or interventions previously reviewed and rated. The current WWC Standards offer guidance for those planning or carrying out studies, not only in the design considerations but the analysis and reporting stages as well. The WWC Standards, however, may not pertain to every situation, context, or purpose of a study and will evolve.

### What's New?

**NCER Releases Two New Practice Guides:** Sep 28  
**Encouraging Girls in Math and Science and  
Organizing Instruction and Study to  
Improve Student Learning**

Encouraging Girls in Math and Science is the second in a series of IES guides in education; Organizing Instruction and Study to Improve Student Learning is the third IES Practice Guide. [\(more info\)](#)

**WWC Releases New Intervention Report -** Aug 13  
**Success for All**

Success for All (SFA)® is a comprehensive school reform model that includes a reading, writing, and oral language development program for students in pre-kindergarten through grade eight. [\(more info\)](#)

**WWC Releases New Intervention Report -** Aug 13  
**Ladders to Literacy for Kindergarten  
Students**

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### CURRENT TOPICS



**Beginning Reading.** This review focuses on reading interventions that address student outcomes for students in grades K-3 in four domains.



**Character Education.** This review focuses on programs designed to increase student outcomes related to positive character development, prosocial behavior, and academic performance.



**Dropout Prevention.** This review focuses on interventions in middle school, junior high school, or high school designed to increase high school completion, including techniques





## EARLY CHILDHOOD EDUCATION

[Abstract](#) |  [Review Protocol](#) (125 KB)

### Intervention Reports

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Reading](#)[Let's Begin with the  
Letter People®](#)[Literacy Express](#)[Phonological Awareness  
Training](#)[Phonological Awareness  
Training plus Letter  
Knowledge Training](#)[Pre-K Mathematics](#)[Ready, Set, Leap!®](#)

The What Works Clearinghouse review in this topic area focuses first on early childhood education interventions (curricula and practices) designed for use in center-based settings with 3- to 5-year-old children who are not yet in kindergarten or children who are in preschool, with a primary focus on cognitive and language competencies associated with school readiness (language, literacy, math, and cognition). Interventions and studies with a primary focus on socio-emotional development and approaches to learning may be addressed in a subsequent phase of the review. The review also includes a focus on center-based early childhood education interventions designed to improve the school readiness skills of preschool children with developmental delays or diagnosed disabilities. These may be inclusive interventions used with all children or targeted interventions designed specifically for children with developmental delays or diagnosed disabilities.

WWC Intervention Reports provide all findings that "Meet Evidence Standards" or "Meet Evidence Standards with Reservations" for studies on a particular intervention. Intervention reports are created for those interventions that have at least one study that "Meets Evidence Standards" or "Meets Evidence Standards with Reservations." Intervention reports are one component of the decision-making process, but should not be the sole source of information when making educational decisions.

**EFFECTIVENESS RATINGS FOR EARLY CHILDHOOD EDUCATION PROGRAMS IN SIX DOMAINS**

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## Featured Content



### English Language Learners

More than 10% of U.S. students are limited English proficient. There are a number of research-based practices to help teach primary grade English learners how to read effectively.

See how Teaching Literacy in English to K-5 English Learners can make a difference for your English learners.

## Inside Classrooms Selected Highlights



**English Language Learners**  
See eight strategies that teachers at one school use to teach vocabulary.



**English Language Learners**  
See graphic organizers and other strategies for teaching academic English.

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Watch this guided tour of features found on this site!

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# Research and Training Center on Early Childhood Development



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The mission of the Research and Training Center (RTC) on Early Childhood Development is to promote and enhance the healthy development of infants, toddlers, and preschoolers with or at risk for developmental delays or disabilities. The RTC was established to create a bridge between research evidence and early childhood intervention practices.

Our website is designed specifically for parents, therapists, early childhood educators and early interventionists, as well as researchers. The website includes information about effective practices based on research. If you are interested in the latest research on a particular intervention practice, visit our [products page](#). If you can't find what you are interested in, let us know what you need by completing the [topic suggestion form](#). We are committed to making the materials on our website as useful as possible. We appreciate any feedback you can give us to make improvements, and encourage you to visit our [feedback page](#).

The RTC is a major initiative of the [Center for Evidence-Based Practices](#) at the [Orelena Hawks Puckett Institute](#). RTC partners include the [Center for Excellence in Early Childhood Education](#), Asheville, NC, and the [Family, Infant and Preschool Program](#), Western Carolina Center in Morganton, NC. The RTC is funded by the U.S. Department of Education, Office of Special Education Programs (OSEP), Research-to-Practice Division.

### More information for:

[Early Childhood Practitioners](#)

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[Centerscope](#) Articles about the conceptual and operational framework of the RTC

[Bridges](#) Practice-centered research syntheses of topics related to early childhood development

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# Center on the Social and Emotional Foundations for Early Learning



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Tuesday, Nov 1

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## Welcome!

The **Center on the Social and Emotional Foundations for Early Learning** is a national center focused on strengthening the capacity of child care and Head Start programs to improve the social and emotional outcomes of young children.

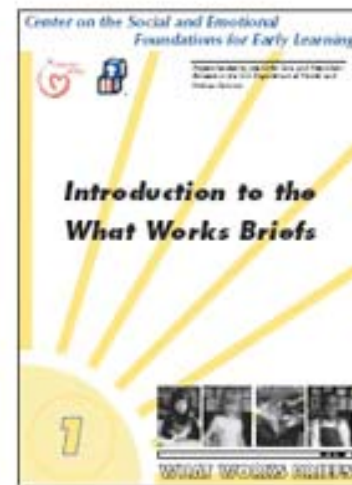
The Center will develop and disseminate evidence-based, user-friendly information to help early childhood educators meet the needs of the growing number of children with challenging behaviors and mental health challenges in child care and Head Start programs.

The Center on the Social and Emotional Foundations for Early Learning will:

- Focus on promoting the social and emotional development of children as a means of preventing challenging behaviors.
- Collaborate with existing training and technical assistance (T/TA) providers for the purpose of ensuring the implementation and sustainability of practices at the local level.
- Engage in a comprehensive, culturally sensitive approach that is inclusive of and responsive to the needs of programs, families, other professionals, and communities.



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Promising  
Practices  
Network on children, families and communities



Operated by the RAND Corporation

What works for children and families

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## Welcome

The Promising Practices Network (PPN) is dedicated to providing quality evidence-based information about what works to improve the lives of children, youth, and families.

The PPN site features summaries of programs and practices that are proven to improve outcomes for children. All of the information on the site has been screened for scientific rigor, relevance, and clarity.

Learn more about [how we screen the programs on this site](#).

## What's New

October 2007

### Attention PPN visitors — We want to hear from you!



Your opinions are important to us. The Promising Practices Network (PPN) on Children, Families and Communities is conducting a survey to learn more about who currently uses the website and how PPN information is used in efforts to improve outcomes for children and their families. We would also like to know how we can make the site more useful to people like you.

Whether this is your first time visiting PPN, or if you visit regularly, we want to hear from you! The survey **takes only 5-10 minutes** to complete and to show our appreciation for your time, you may provide your name and e-mail address at the end of the survey to be entered in a drawing to win one of three **\$50 cash prizes**. Participation is entirely voluntary. This is an anonymous survey, unless you choose to provide your name and e-mail address. If you do provide your name and e-mail address, all of your responses will be kept confidential. The survey is conducted by RAND, a nonprofit research organization, and hosted by SurveyMonkey.com.

If you experience any difficulties or have any questions about this survey, please contact us at [PPNsurvey@rand.org](mailto:PPNsurvey@rand.org).

[Go to the PPN survey](#) at [surveymonkey.com](http://surveymonkey.com)

### New Study Finds Serious Gaps in Health Care Quality for America's Children



Children in the United States fail to get recommended health care more than half of the time, according to a new study published in the New England Journal of Medicine. This study is the largest and most comprehensive examination of health care quality for America's children to date. Findings show that many U.S. children are not receiving recommended preventive care and screening services, such as regular weight and measurement checks, nor are they receiving standard care for conditions such as asthma and diarrhea. Recommended strategies for reducing these deficits include increased investments in health information technology and greater attention to documenting and measuring quality of care for children.

Read the [news release](#) at [rand.org](http://rand.org) Read the [journal abstract](#) at [nejm.org](http://nejm.org)

## First Time Visitor?

See our [orientation page](#).

## PPN KIDS COUNT Pages



Evidence-based information on programs, practices, tools and resources to help citizens, service providers, and policymakers improve the outcomes seen in statewide KIDS COUNT data.

**Take action! Use research to improve your work!**

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## PPN Policy Forum Online

### "Effective SCHIP Policy"



This recent PPN Policy Forum brought together leading experts from around the nation to share lessons from SCHIP's first 10 years in the areas of research, policy, and implementation.

**Online video of this event is available.**

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## Partner Pages

See state-specific issues

# **Consider a 5-step Process**

## **Adapted from Evidence-Based Medicine**

1. Pose an answerable question.
2. Find best available research evidence.  
*(Where?)*
3. Appraise evidence quality & relevance.  
*(Who? How?)*
4. Integrate the research evidence with professional and family wisdom & values.  
*(How?)*
5. Evaluate effectiveness of steps 1-4. *(How?)*



## Step 1

# Posing an Answerable Question

	<b>Target Group or Issue</b>	<b>Intervention</b>	<b>Comparison condition (if applicable)</b>	<b>Outcomes of Interest</b>
<b>Question 1:</b>	For young children with developmental delays...	...is sensory integration		effective for improving motor, language, and cognitive functioning?
<b>Possible search terms</b>	Infants and toddlers, special needs, motor disabilities	Sensory motor therapy, sensory integration, sensory integrative techniques		[could include specific outcome measures in search]

Adapted from: What Works for Children Group. (2003). *Evidence guide: An introduction to finding, judging, and using research findings on what works for children and young people*. London: Economic and Social Research Council.

# Search Results....

1. [A comparison of structured sensorimotor therapy and child-centered activity in the treatment of preschool children with sensorimotor problems](#) By DeGangi GA. AMERICAN JOURNAL OF OCCUPATIONAL THERAPY, Sep 1, 1993; 47(9): 777-86.
2. [The efficacy of sensory integration treatment compared to tutoring](#) By Wilson BN. PHYSICAL AND OCCUPATIONAL THERAPY IN PEDIATRICS, Jan 1, 1992; 12(1): 1-36.
3. [Sensory integration and play behavior: a case study of the effectiveness of occupational therapy using sensory integrative techniques](#) By Schaaf RC. OCCUPATIONAL THERAPY IN HEALTH CARE, Jun 1, 1987; 4(2): 61-75.
4. [Reliability of "the Motor Observations with regards to Sensory Integration": a pilot study](#) By Norwood KW. BRITISH JOURNAL OF OCCUPATIONAL THERAPY, Feb 1, 1999; 62(2): 80-8.
5. [The effect of a sensory integration approach on a child with developmental co-ordination disorder](#) By Lynch H. IRISH J OCCUP THER, Jan 1, 2003; 32(2): 13-8. [Search here for UNC holdings](#)<sup>^</sup>
6. [Occupational therapy for children with developmental coordination disorder: a study of the effectiveness of a combined sensory integration and perceptual-motor intervention](#) By Davidson T. BRITISH JOURNAL OF OCCUPATIONAL THERAPY, Oct 1, 2000; 63(10): 495-9. [Search here for UNC holdings](#)
7. [The efficacy of Le Bon Depart and Sensory Integration treatment for children with developmental coordination disorder: a randomized study with six single cases](#) By Leemrijse C. CLINICAL REHABILITATION, Jun 1, 2000; 14(3): 247-59. [HTML Full Text](#) [PDF Full Text](#) [Search here for UNC holdings](#)



# **Which practices have empirical evidence of effectiveness?**

- Response-contingent learning
- Caregiver responsive style of interaction
- Parent-child interaction therapy for children with disruptive behavior
- Use of “social toys” to promote peer interaction
- Pivotal response training for children with Autism



# **Which practices have empirical evidence of effectiveness?**

- Dialogic reading & interactive shared book reading (vocabulary development)
- Responsive home environment (social-emotional development)
- Interventions to promote parent sensitivity
- Guided design learning (adult problem-solving skills)
- Contingent touch (infant responsiveness)

# **Which practices have NO empirical evidence of effectiveness?**

- Incorporating child interest in teaching and learning activities
- Adult reinforcement and child behaviors
- Treadmill to promote walking
- Hippotherapy
- Sensory integration

# **Which Practices Have NO Empirical Evidence of Effectiveness?**

- Dolphin Therapy
- Diagnostic Practices for ADHD in early childhood
- Melodic intonation therapy
- Infant Massage
- Yoga for children with developmental delays
- Craniosacral therapy



**Where do we go from here?**



# **The Evidence-Based Decision-Making Process**

1. Discuss the vignette in your small group.
2. Review the decision-making framework.
3. What question would you take to the research?
4. What does the research say?
5. What would you recommend?

**How can we reach  
agreement as a field about  
what evidence-based  
practice means?**





**Does  
research trump  
professional and family  
wisdom and values?**



**How can we incorporate professional and family wisdom & values into evidence-based decision-making?**



# **Eminence-Based Practice**

Making the same mistakes with increasing confidence over an impressive number of years.

—O'Donnell, 1997, *A Skeptic's Medical Dictionary*



# Resources

Buyse, V., & Wesley, P. W. (2006).  
*Evidence-Based Practice in the Early  
Childhood Field*. Baltimore: Brookes  
Publishing.

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